

**CLAIMS**

1. Omeprazole form A, characterized in being thermodynamically stable at room temperature.
2. Omeprazole form A, characterized in being essentially non-hygroscopic.
3. Omeprazole form A according to claims 1 or 2, characterized in providing an X-ray powder diffraction pattern exhibiting substantially the following d-values;

Form A		Form A	
d-value (Å)	Relative intensity	d-value (Å)	Relative intensity
9.5	vs	3.71	s
7.9	s	3.59	m
7.4	w	3.48	m
7.2	vs	3.45	s
6.0	m	3.31	w
5.6	s	3.22	s
5.2	s	3.17	m
5.1	s	3.11	w
4.89	w	3.04	w
4.64	m	3.00	w
4.60	m	2.91	w
4.53	w	2.86	w
4.49	m	2.85	w
4.31	m	2.75	w
4.19	w	2.67	w
4.15	w	2.45	w
3.95	w	2.41	w

4. Omeprazole form A, according to any of claims 1-3, characterized by having a triclinic unit cell with parameters

5       $a=10.410(4) \text{ \AA}$ ,  $b=10.468(3) \text{ \AA}$ ,  $c=9.729(4) \text{ \AA}$ ,  $\alpha=111.51(3)^\circ$ ,  $\beta=116.78(3)^\circ$ ,  
 $\gamma=90.77(3)^\circ$ .

5. Omeprazole, characterized in containing more than 50%, by weight, of omeprazole form A according to any of claims 1-4.

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6. A process for the preparation of omeprazole form A as defined in any of claims 1-4, comprising the steps of;

a) dissolving or suspending omeprazole of any form, or a mixture of any form, in a suitable solvent;  
15      b) allowing the solution to crystallize, optionally using omeprazole form A to induce crystallization, and  
c) isolating the omeprazole form A thus obtained.

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7. A process according to claim 6, characterized in that the solvent used in step a) is chosen from a group consisting of methanol, ethanol, acetone, ethyl acetate, methyl tert. butyl ether, toluene, or any mixture thereof.

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8. A process according to claims 6 or 7, characterized in that step a) is performed at 15-25°C.
9. A process according to any of claims 6-8, characterized in that step b) is performed during a prolonged time period.

10. A process according to any claim 6-9, characterized in that step b) is performed during at least 2 hours.

11. Omeprazole form A, prepared by a process according to any of claims 6-10.

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12. A pharmaceutical formulation comprising omeprazole as defined in any of claims 1-5 in admixture with a pharmaceutically acceptable excipient.

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13. The use of omeprazole as defined in any of claims 1-5, as active ingredient in the manufacture of medicament for use in treatment of gastrointestinal disorders.

14. A method of treatment of gastrointestinal disorders which comprises administration of a therapeutically effective amount of omeprazole as defined in any of claims 1-5, to a patient suffering from gastrointestinal disorders.

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